flecting real-life clinical practice based on structured interviews with experts. **METHODS:** Six experts in the field of schizophrenia from different treatment settings and regions in Germany were consulted. Structured interviews about the treatment patterns and costs in selected outpatient and inpatient treatment areas, e.g. psychiatrists, occupational therapists, day care units and acute psychiatric wards, were conducted. Costs were assessed from the perspective of the statutory health insurance. The assessment was divided into stable and relapsing schizophrenic patients. Costs for the management of frequent side effects were considered. **RESULTS:** The proportion of stable patients with schizophrenia was assessed to be 80% in Germany. Stable patients were estimated to have 1.5 psychiatrist contacts per quarter and relapsing patients were assessed to have 6-8 contacts per quarter. Psychiatrist costs per quarter are varying between different regions in Germany, e.g. costs in Bavaria were €92 in 2011. Inpatient costs per day in acute psychiatric wards are varying between €206 in Baden-Württemberg and €244 in Saarland. **CONCLUSIONS:** The results of the structured expert interviews will be used as input for cost-effectiveness models in schizophrenia. In further studies the results should be verified in real-life clinical practice.

PMH19

A REHABILITATION INTERVENTION TO HELP PEOPLE WITH SEVERE MENTAL ILLNESS OBTAIN AND KEEP A PAID JOB: THE ECONOMIC EVALUATION

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OBJECTIVES: Only few people with severe mental illness are able to obtain paid work. Individual placement and support (IPS) is a vocational rehabilitation intervention aimed at assisting people with severe mental illness in finding competitive employment. This study assessed the balance between costs and outcomes of IPS compared to regular vocational rehabilitation in people with severe mental illness in the Netherlands. **METHODS:** An economic evaluation was conducted alongside a multicenter RCT with a follow-up of 30 months. In total 151 people with severe mental illness were randomly assigned to IPS or regular vocational rehabilitation-(RVR). The primary outcome measure of the cost-effectiveness analysis was the percentage of people with at least one day of paid work during the study. The economic evaluation was conducted from a societal perspective. Costs and outcomes were prospectively assessed during 30 months. The expectation maximisation algorithm with a bootstrap approach was applied to deal with missing cost data. **RESULTS:** The percentage of people with paid work during the study was significantly higher in the IPS group (44% versus 25% in RVR). There were no differences between groups in quality of life. Mean total costs were €57,285 in the IPS group and €43,819 in the RVR group. Cost types that contributed considerably to the total costs were related to hospital admissions, sheltered accommodations, and informal care. The calculated incremental cost-effectiveness ratio was €1,084 per percent of people with paid work gained. **CONCLUSIONS:** The study demonstrated that IPS was associated with higher costs and better (work-related) outcomes in people with severe mental illness. Decision makers will eventually have to decide whether the described gains associated with IPS are worth the additional costs. Generalizing current results to other countries may only be possible after carefully comparing the various components of each health care system concerned.

PMH20

METABOLIC CONSEQUENCES AND COST-EFFECTIVENESS OF ASENAPINE IN THE TREATMENT OF BIPOLAR DISORDER

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OBJECTIVES: Metabolic syndrome (MetS) is a medical condition that may arise during exposure to antipsychotics and carries with it an increased risk of diabetes and cardiovascular disease (CVD). Asenapine is the first tetracyclic antipsychotic to treat manic episodes of Bipolar I Disorder (BD- I). In a head-to-head non-inferiority trial versus olanzapine, post-hoc analyses illustrate the higher incidence of developing MetS with olanzapine than with asenapine, already after 12 weeks of treatment. The aim of this study was to assess the cost-effectiveness of asenapine in the treatment of BD-I manic episodes compared to atypical antipsychotics with a focus on the long-term consequences of MetS over lifetime horizon. **METHODS:** A Markov health-state cohort model was developed. Because similar efficacy in treating manic episodes was demonstrated in active controlled non-inferiority clinical trial vs. olanzapine and through indirect comparisons with quetiapine and aripiprazole, only the consequences of MetS were considered for this model. The risks of developing MetS after 12 weeks of treatment were derived from randomized clinical trials. The subsequent risks of developing diabetes or cardiovascular disease were based on previously published risk models. The perspective of the UK National Health Service (NHS) was applied and a lifetime horizon adopted. Deterministic and probabilistic sensitivity analyses were conducted. **RESULTS:** Asenapine dominates (more effective and less expensive) olanzapine, quetiapine and aripiprazole over lifetime horizon. Compared to treatment with generic olanzapine, and branded aripiprazole and quetiapine, asenapine was associated with incremental total costs of -£121, -£312 and -£560 respectively. Asenapine was associated with Quality-Adjusted Life Year gains of 0.0569 compared to olanzapine and quetiapine, and 0.0038 compared to aripriprazole. **CONCLUSIONS:** The significant lower incidence of developing MetS associated with asenapine compared to olanzapine, aripriprazole and quetiapine is associated with a lower incidence of diabetes and CVD that results in lower subsequent treatment costs and improved morbidity.

PMH21

COST-EFFECTIVENESS OF INTRAMUSCULAR ZIPRASIDONE FOR THE TREATMENT OF ACUTE AGITATION ASSOCIATED TO SCHIZOPHRENIA IN MEXICO

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OBJECTIVES: Acute agitation is a transient syndrome characterized by increase in verbal and physical behavior, which results in aggression. In order to diminish the risk of damage for both, caregivers and patients, fast response drugs are required. The study is aimed to estimate the pharmacoeconomic profile of intramuscular injections of haloperidol 5mg, olanzapine 10mg and ziprasidone 20mg for acute agitation episodes associated with schizophrenia, from the perspective of a Mexican public health institution. **METHODS:** A discrete event simulation model was developed. The measure of effectiveness was the average time in which patients reach control ≥50%, regarding baseline level in the Overt Aggression Scales, with a time horizon of 12 hours. Clinical efficacy was extracted from published literature. A panel of experienced psychiatrists (n=12) was used to estimate the medical resource use profile. The model assesses direct medical costs (2012 US$) such as drugs, specialist's visits, laboratory tests and management of adverse events. The results are reported in terms of ICER. Deterministic and probabilistic sensitivity analyses were performed. **RESULTS:** The cost per patient for ziprasidone was $693, it represents $198.6 and $64.6 less than the cost of haloperidol and olanzapine, respectively. Differences in costs were driven by less specialist's visits with ziprasidone and high incidence of akathisia and dystonia with haloperidol. The effectiveness measure was accomplished by ziprasidone, olanzapine and haloperidol at 1.55h, 1.48h and 1.74h, respectively. Both ziprasidone and olanzapine dominated haloperidol. Results were robust to changes up to ±10% in the acquisition cost of ziprasidone. In probabilistic sensitivity analysis, results were consistent with base case, although differences between ziprasidone and olanzapine were slighter. **CONCLUSIONS:** In comparison to olanzapine and haloperidol, ziprasidone is associated to the lowest costs in the treatment of acute agitation episodes in schizophrenic patients in the Mexican setting, as well as better clinical performance than haloperidol.

PMH22

COST-UTILITY ANALYSIS OF DEPOT ATYPICAL ANTIPSYCHOTICS FOR CHRONIC SCHIZOPHRENIA IN CROATIA

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OBJECTIVES: We conducted a pharmacoeconomic analysis to determine the cost-effectiveness of atypical antipsychotic long acting treatments in Croatia. **METHODS:** A 1-year decision-analytic framework modeled drug use in chronic schizophrenia. We determined the average direct cost to the Croatian Institute for Health Insurance of using treatment pathways that includes depot formulations of paliperidone (PP-LAI), risperidone (RIS-LAI) or olanzapine (OLZ-LAI) long acting treatments. The decision tree was populated with guidance from an expert panel along with literature-derived clinical rates. Costs were obtained from published lists and adjusted to 2012 euros using the Croatian consumer price index. Clinical outcomes included quality-adjusted life-years (QALYs), hospitalization rates, emergency room treatment rates, and relapse days. The outcome of interest was the incremental cost/QALY gained. **RESULTS:** Total direct costs to treat one patient for one year were €4958 for PP-LAI, €5117 for RIS-LAI, and €6429 for OLZ-LAI. Respective QALYs were 0.817, 0.805 and 0.812. PP-LAI dominated the other choices as it had a lower cost and higher QALY score. PP-LAI was associated with 34.5 relapse days, 0.252 hospitalizations and 0.127 emergency room visits; OLZ-LAI had 38.4 relapse days, 0.280 hospitalizations and 0.142 emergency room visits; RIS-LAI had 41.1 relapse days, 0.305 hospitalizations and 0.146 emergency room visits. Results were sensitive against RIS-LAI with respect to drug costs (i.e., if PP-LAI cost increased by 10% or RIS-LAI decreased by 14%) and to OLZ-LAI (i.e., a 10% change for either drug) with respect to adherence rates. Overall, results were generally robust; PP-LAI dominated OLZ-LAI in 72.2% of 10,000 Monte Carlo simulations and dominated RIS-LAI in 87.8%. **CONCLUSIONS:** PP-LAI was the cost-effective choice which dominated the others for treating chronic schizophrenia in Croatia. Using depot paliperidon would reduce the overall costs of caring for SCH patients.

PMH23

A COST-EFFECTIVENESS ANALYSIS OF THE LONG-ACTING ANTISPYCHOTIC DRUGS PALIPERIDONE PALMITATE, OLANZAPINE PAMOATE AND RISPERIDONE IN THE TREATMENT OF SCHIZOPHRENIA IN FINLAND

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OBJECTIVES: We determined the cost-effectiveness of long-acting antipsychotic (LAI) drugs paliperidone palmitate (PP-LAI), olanzapine pamoate (OLZ-LAI) and risperidone (RIS-LAI) for chronic schizophrenia. **METHODS:** We adapted a decision tree analysis from Norway for the Finnish National Health Service. Country-specific data were sought from the literature and public documents, guided by clinical experts. Costs of health services and products were retrieved from literature sources and current price lists. We estimated average costs for treating patients with each LAI for one year, average remission days, rates of hospitalization and

emergency room visits, and quality-adjusted life-years. **RESULTS:** PP-LAI was dominant. It cost €10,169/patient; outcomes included 330.1 days in remission, 25% were hospitalized, 12% visited emergency rooms and 0.845 QALY. OLZ-LAI costs were €11,589; patients experienced 326.8 remission days and 0.844 QALY; 27% were hospitalized and 14% visited emergency rooms. RIS-LAI costs were €12,091; patients experienced 323.8 remission days and 0.836 QALY; 30% were hospitalized and 14% visited emergency rooms. For all products, costs were approximately 35% due to drugs, 48% hospitalization, and the remainder due to medical care. The analysis was robust against most variations in input values; adherence rates were sensitive. PP-LAI was dominant over OLZ-LAI and RIS-LAI in 50% and 73% of simulations, respectively. **CONCLUSIONS:** In Finland, PP-LAI dominated the other LAIs as it was associated with a lower cost and better clinical outcomes.

PMH24

COST OF LONG-ACTING RISPERIDONE INJECTION VERSUS LONG-ACTING PALIPERIDONE PALMITATE IN PATIENTS WITH SCHIZOPHRENIA IN RUSSIA

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OBJECTIVES: To perform economic evaluation of paliperidone palmitate suspension for injection (PPI) compared to risperidone long acting injection (RLAI) for the treatment of schizophrenia from Russian health care system point of view. **METHODS:** Direct medical costs of treating schizophrenia with PPI and RLAI for 1 year were calculated in an Excel model. The model was based on simulation of rate of relapse taking into account the expected adherence to treatment. The key parameters of the model were derived from the systematic review of the RCTs results, e-STAR observational study (local data for Russia) and expert panel opinions. Adherence simulation was based on the assumption that reduced number of injections will decrease number of patients giving up treatment and thus decrease probability of relapse. Direct costs of treatment included hospitalization for the relapse, outpatient care visits, and the cost of RLAI and PPI Sensitivity analysis to the variations of key parameters was made. **RESULTS:** Analysis of the results of RCTs has not shown superiority of RLAI-based treatment efficacy or safety over PPI-based treatment. The only possible advantage is increased adherence rate due to reduced number of injections per month. If adherence increases from 75.7% to 82.3% the costs of medical care in a hypothetical cohort of patients with schizophrenia is less for PPI 6.36 bln USD vs 6.45 bln USD in case of RLAI (per year). Thus difference in costs in a hypothetical cohort of patients with schizophrenia is 87,881 USD, or 87.88 USD per patient. Variation in the level of non-adherence to treatment did not influence the results but the economic advantage of PPI disappears when its price increases by +1.5% from baseline. **CONCLUSIONS:** PPI may constitute a cost-saving treatment option for patients with schizophrenia if its price is no more than 6.62 USD per mg.

PMH25

AN ASSESSEMENT OF THE COST-EFFECTIVENESS OF ESCITALOPRAM VERSUS MULTIPLE COMPARATORS AS FIRST LINE ANTIDEPRESSANT IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER (MDD) IN BELGIUM

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OBJECTIVES: To assess the cost-effectiveness of escitalopram as first line treatment of MDD in Belgium. **METHODS:** The model structure was based on a decision tree developed by the Swedish Dental and Pharmaceutical Benefits Agency (TLV). Comparators included citalopram, fluoxetine, paroxetine, sertraline, duloxetine, venlafaxine and mirtazapine. In the model, patients not achieving remission or relapsing on the assessed treatment moved to a second therapeutic step (titration, switch, add-on or transfer to a specialist). In case of failure in the second step or following a suicide attempt, patients were assumed to be referred to secondary care. The time horizon was one year and the analysis was conducted from the NIHDI (national health insurance) and societal perspectives. Remission rates were obtained from a network meta-analysis published by the TLV and other model parameters were derived from the published literature and experts' opinion. To reflect local practices, a recent Belgian survey of 97 GPs (general practitioners) on the management of MDD was used. The effect of uncertainty in model parameters was estimated through scenario analyses and a probabilistic sensitivity analysis (PSA). **RESULTS:** In the base case analysis, escitalopram was identified as the optimal strategy: it dominated all other treatments except venlafaxine from the NIHDI perspective, against which it was cost-effective with an incremental cost-effectiveness ratio of €6,351 per quality-adjusted-life-year (QALY). Due to the high cost of absenteeism, escitalopram dominated all other strategies from the societal perspective. At a threshold of €30,000 per QALYs from the NIHDI perspective, the PSA showed that, in comparison to the other drugs, escitalopram had a probability between 61% (vs. venlafaxine) and 100% (vs fluoxetine) to be identified as the optimal strategy. **CONCLUSIONS:** Escitalopram was identified as the optimal strategy from the NIHDI and societal perspectives. This study investigated ways to present sensitivity analyses while comparing multiple strategies.

PMH26

COST-EFFECTIVENESS OF ATYPICAL VERSUS TYPICAL ANTIPSYCHOTICS IN PATIENTS WITH SCHIZOPHRENIA IN RUSSIA

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OBJECTIVES: To estimate cost-effectiveness of different (7 drugs) peroral atypical antipsychotics (AAP) vs haloperidol (H) for the treatment of schizophrenia. **METHODS:** Cost-effectiveness analysis of AAP compared to H for schizophrenia treatment was performed. A mathematical model based on simulation of treatment outcomes in hypothetical cohort of patients was developed. Key parameters of the model were determined using systematic review of the RCTs results (improvement in clinical and functional status as measured by the PANSS and CGI, frequency of relapse, adverse events), e-STAR observational study (local data for Russia), epidemiological data and expert panel opinions. For each option direct costs of treatment were considered: hospitalization and outpatient care, and the cost of medications for AAP- and H-based treatment. ICER (cost of a day without exacerbation of the disease) for each AAP was calculated vs H. **RESULTS:** According to published trials the treatment of schizophrenia in the AAP-based therapy was associated with a significant improvement in PANSS and CGI, decreased rate of relapse and adverse events compared to H-based treatment. Analysis of the results of RCTs has not shown superiority of any certain drug inside the AAP group. In case of application of AAP-based therapy hospitalization rate decreases by 38% compared to H-based treatment but the total cost of treatment remains lower for H. Depending on the drug $ICER_{aap}$ for AAP vs H varies from 4,202 USD to 18,157 USD per day without exacerbation of the disease. In group AAP paliperidone has the lowest ICER vs H - 4202 USD. **CONCLUSIONS:** Results of the study suggest that AAP-are more efficacious compared to H, the total cost of treatment remains lower for H. In-group AAP paliperidone is more cost-effective.

PMH27

COST-EFFECTIVENESS ANALYSIS OF DEPRESSION IN ITALY

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OBJECTIVES: Depression has a lifetime prevalence of 10–25% among women and 5–12% among men. Selective serotonin reuptake inhibitors (SSRIs) are the most used and the most cost effective treatment in long-term MDD. Since the introduction of generic SSRIs the costs of the branded drug have been questioned. The objective of this study is to analyze the Cost-effectiveness of the most prescribed SSRIs: sertraline, paroxetine, citalopram, that lost their patent, and escitalopram that is still covered by a patent. **METHODS:** A decision analytic model was adapted from TLV (Dental and Pharmaceutical Benefits Board, Sweden) in order to reflect the current clinical practice in depression helped by a panel of Psychiatrists and Health economists. Perspective used was the Lombardy Region Health Service and the Time horizon was 12 months. Several scenario simulations, one way Sensitivity analyses and Monte Carlo simulations have been performed in order to test the robustness of the model. **RESULTS:** Base case scenario showed an ICER of escitalopram vs. sertraline of € 4.395. All the tests showed that citalopram and paroxetine are dominated. One way Sensitivity analyses and tests were performed resulting in ICER variation from € 135 to € 18.000, nevertheless Monte Carlo simulations have shown an ICER stabilized at the mean value of around 4.000 euro confirming the base case scenario. **CONCLUSIONS:** ICER represents the additional cost due to a new technology related to its additional benefits. ICER has to be compared with a meaningful threshold value under which a technology may be considered cost-effective. Many agencies have studied this threshold. PBAC (Australia) propose € 25K, NICE (UK) propose € 35K. Comparing our base case scenario and also the ICER ranges that came from the Sensitivity analyses (One way and multivariate) with these thresholds escitalopram should be accepted as a cost-effective treatment for MDD.

PMH28

USING COST-EFFECTIVENESS ANALYSIS TO DEFINE THE OPTIMAL GROUP OF PATIENTS TO BENEFIT FROM RISPERIDONE LONG-ACTING INJECTABLE

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OBJECTIVES: Several studies have demonstrated that Risperidone Long-Acting Injectable (RLAI) reduces psychotic relapses, hospitalization and resources used among schizophrenic patients with poor adherence to oral medication. However, the magnitude of such reductions depends upon the baseline relapse rate. This study is aimed at identifying the thresholds of relapse risk at which RLAI is cost-effective, compared to Oral Olanzapine (OO), Oral Quetiapine (OQ) and Haloperidol Decanoate (HD). **METHODS:** A Markov model was developed to simulate the natural history of schizophrenia for patients who have poor adherence and high risk of relapse with oral medication. The strategies compared were starting treatment with RLAI, OO, OQ or HD. Relapse probabilities, adherence levels, side effects and treatment switching were derived from long-term observational data. Resource use and costs were obtained from Mexican public institutions. Patients transit through different health states in the model on a monthly basis over a 10-year time horizon. Incremental cost and effectiveness outcomes were discounted at 3% annually. **RESULTS:** In patients with Baseline Annual Relapse Rate (BARR) equal or greater than 72.5%, RLAI is the most effective and less costly treatment (cost-saving) if effectiveness is measured in terms of QALYs or relapses averted. In this case, RLAI produces 0.27 (5.13-5.4) additional discounted QALYs and avoids 3.97 relapses, compared to OO. According